

XIV.—*Note in answer to Mr. Clark's Remarks on Lepton sulcatulum.* By J. GWYN JEFFREYS, Esq., F.R.S.

To the Editors of the Annals of Natural History.

GENTLEMEN,

I cannot agree with Mr. Clark in supposing that *Lepton sulcatulum* is the fry of *Circe minima*. I have now before me no less than 49 perfect specimens (some of which retain the remains of the animal) and 332 single valves of the former species. They constitute a perfect series from the fry to the adult. I have placed in juxtaposition with them a complete series of *Circe minima* obtained from the same locality (Guernsey), three of the latter being considerably smaller than the average size of *Lepton sulcatulum*. Each series differs widely from the other in respect of form, texture, dentition, and position of the ligament. The fry of *Circe minima* is gibbous, of a triangular shape, remarkably solid for its size, with its beaks strongly incurved, and a distinct lunule under them; and it possesses an *external* ligament and the peculiar dentition of the *Cyprinidæ*. The *Lepton sulcatulum*, on the contrary, is somewhat compressed, nearly round in outline, semitransparent, with its beaks calyculated (as in the other species of *Lepton*), and it has an *internal* ligament and the unmistakable dentition of the *Kelliadæ*. Even in the most minute *Circe minima* the coloured spots and markings which adorn the adult are observable; while the other is white and spotless. The number of ridges, too, on the first are not half so numerous as those on *Lepton sulcatulum*, and they are disposed in a very different way. Owing to the ligament in *Lepton* being internal, the valves become easily separated; and this accounts for the comparatively small proportion of perfect specimens which are usually met with. I request your readers to take the trouble of comparing the excellent figures of the hinge in *Lepton sulcatulum* (from a drawing kindly furnished by my friend Dr. Lukis) in the 'Annals' ser. 3. vol. iii. pl. 2. f. c, d, e, f, with those of *Circe minima* in the 'British Mollusca,' vol. iv. pl. 26. f. 4, and I think they will at once be satisfied that I have not erred in considering these species to be distinct.

Before I described *Lepton sulcatulum* in the 'Annals,' I had the advantage of a correspondence with Mr. Clark on the subject, in which he at first pronounced the shells I sent him, as belonging to a new species, to be successively *Lucina borealis*, *L. leucoma*, *L. spinifera*, and *Venus casina*; but afterwards he candidly admitted that "beyond all dispute" it was a *Lepton*, and allied to *L. Clarkiæ*. His observations on the last occasion were extremely valuable and interesting, especially as to the

calyculation of the beaks, the internal ligament, and the dentition. I am not, however, surprised at the difficulty of distinguishing these tiny objects without a patient comparison with others of a similar kind.

If Mr. Clark has found the *Lepton sulcatulum* at Exmouth (which does not clearly appear from his last paper), the new locality should be noted.

I am, Gentlemen,

25 Devonshire Place, London,
January 20, 1860.

Yours faithfully,

J. GWYN JEFFREYS.

BIBLIOGRAPHICAL NOTICE.

On the Origin of Species by means of Natural Selection; or, the Preservation of Favoured Races in the Struggle for Life.—By CHARLES DARWIN, M.A., F.R.S., F.G.S., &c. London, 1859.

TO endeavour to understand the various "beginnings" of the organic world is so essentially the part of an inductive, inquiring mind, like that of the distinguished naturalist who has lately given us the remarkable volume bearing the above title, that no amount of failure in the attempt to do so can check the inherent desire that we possess to renew our efforts, again and again, to discover them. Yet, in spite of this, no trains of reasoning have ever yet brought us, and none with which we are acquainted, we may safely add, ever *can* bring us, to the absolute origin of the present order of things, and unfold to us (what perhaps it was never intended that we should know) the mysteries of creation. "We cannot in any of the palæontological sciences," says Dr. Whewell, "ascend to a beginning which is of the same nature as the existing cause of events, and which depends upon causes that are still in operation. Philosophers never have demonstrated, and probably never will be able to demonstrate, what was the original condition of the solar system, of the earth, of the vegetable and animal worlds, of languages, of arts. On all these subjects the course of investigation, followed backwards as far as our materials allow us to pursue it, ends at last in an impenetrable gloom. We strain our eyes in vain when we try, by our natural faculties, to discern an origin."

When we look abroad into the world around us, we find ourselves in the midst of a variety of phenomena, and an endless array of organic forms, all circling onwards, yet never, so far as we can see, altering in aspect; so that, from the light of mere nature alone, there seems no reason why they should not go on for ever,—

"Still changing, yet unchanged, still doomed to feel
Endless mutation in perpetual rest."

Neither, on the same grounds, would it appear necessary to believe that they had ever *commenced*, did not geology inform us that there was a time in the world's history when they did not exist, but were